

Term Contract No. 550C

STATE OF NORTH CAROLINA, DEPARTMENT OF ADMINISTRATION		
DIVISION OF PURCHASE AND CONTRACT		
116 West Jones Street, Raleigh, NC 27603-8002		
Term Contract	550C	Long Vehicle Speed Detectors
Effective Dates	May 27, 2014 through May 26, 2017-Non-Renewable	
Bid Number	201400343	
Administrator	Chris Tart	
Phone	(919) 807-4520	
E-Mail	chris.tart@doa.nc.gov	
Last Updated	January 8, 2014	

1. General Information

This contract intended to cover the State's normal requirements for long vehicle speed detectors.

PACKAGING AND SHIPPING INSTRUCTIONS: Each item is to be completely assembled and individually boxed showing manufacturer's part number, purchase order number, and NCDOT part number (if shown on purchase order) on the outside of the box. The user may refuse shipments of items that are not packaged correctly and return at the bidder's expense. A packing slip is to accompany each shipment showing part number as ordered on the purchase order and also showing purchase order number.

2. Scope of Contract

The scope of this contract is limited to the equipment as defined herein. This contract is for use by all state agencies, departments, institutions, universities, community colleges (except those exempted by statute), and certain non-state agencies.

NON-STATE AGENCIES ELIGIBLE TO PARTICIPATE IN THIS CONTRACT: In accordance with North Carolina General Statutes, certain non-state entities described below, may participate in this contract on a voluntary basis. Any of the non-state entities that choose to participate in this contract must abide by the terms and conditions that are set forth in this contract.

Nonprofit corporations operating charitable hospitals, local nonprofit community sheltered workshops or centers that meet standards established by the Division of Vocational Rehabilitation of the Department of Health and Human Services, private nonprofit agencies licensed or approved by the Department of Health and Human Services as child placing agencies, residential child-care facilities, private nonprofit rural, community, and migrant health centers designated by the Office of Rural Health and Resource Development, private higher education institutions, counties, cities, towns, governmental entities, volunteer fire departments, rescue squads, and other subdivisions of the State and public agencies thereof.

3. Taxes

Prices or discounts shown herein do not include any North Carolina sales or use taxes.

4. Abnormal Quantities

Any State agency requirement that exceeds **\$100,000.00** must be forwarded to the Division of Purchase and Contract for processing. The Division, at its sole discretion, may process any such requirement in one of the following ways:

- Purchase may be authorized at the current level of pricing with the current contract vendor(s).
- Additional discounts from the current level of pricing may be negotiated with the current contract vendor(s).
- A separate Invitation for Bids may be issued for the requirement.

5. Minimum Orders

This contract will be for a minimum order of **\$500.00** for any single order. Agencies are authorized to purchase from best available sources on orders less than this minimum order value. This provision shall not be used by an agency to circumvent the intent of the contract. If an agency elects to place an order for less than the minimum order value, and the contractor elects to accept such order, then transportation charges will be prepaid and added to the invoice.

6. Placement of Orders

Orders will be placed throughout the contract period on an as-needed basis for the quantity required at the time, and will be issued directly to the respective contractor(s) or their designated suppliers.

Contract changes, if any, over the life of the contract are implemented by contract addenda released by the Contract Administrator to the contractor. If the contractor is accepting orders and/or delivering through other parties, for example a manufacturer accepting orders and delivering through a dealer network or dealers receiving orders through a network of other dealers, then it is the responsibility of the contractor to apprise such parties of all such contract addenda.

Note: Non-State agencies ordering from this contract are to place the order with the contractor noted and not with NCDOT.

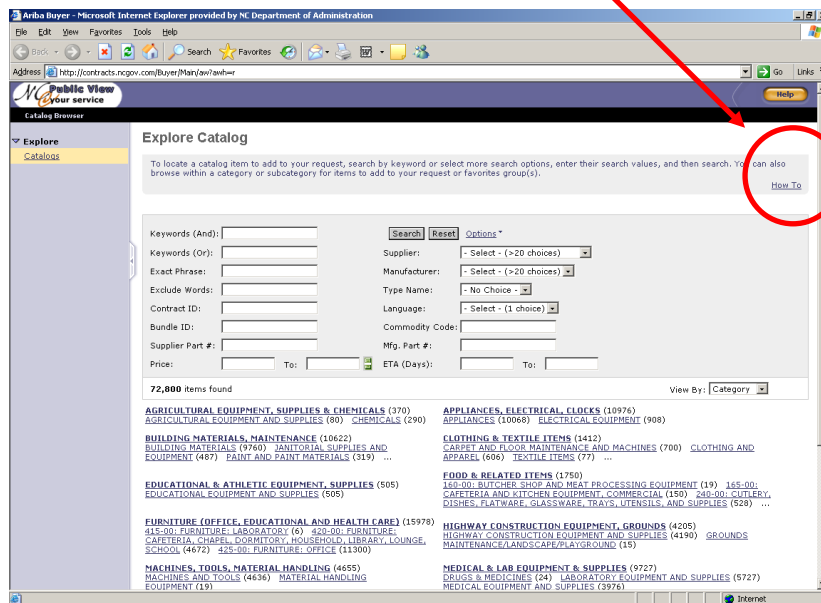
Order Placement Via E-Procurement (Catalog Items)

- Click on the following link: [E-Procurement Users](#)
- When placing an order in the e-procurement system, the very first thing to do is to go to the catalog tab and select options. After you have selected options, select contract ID. In the contract ID space type in the contract ID number, 550B.
- Please make sure the keywords space is blank and the contract ID is typed in the contract ID section.
- After selecting the contract ID and to narrow the search to a particular manufacturer select the manufacturer from the drop down
- When the item to be ordered has been located complete the requisition and issue the purchase order.

Non E-Procurement Users

The E-Procurement Public View will be the only place for Non E-Procurement Users to view the item/pricing information.

- Click on the following link: [E-Procurement Public View](#)
- For online assistance regarding item searching; click on the **“How to”** underlined link located near the upper-right hand corner.



7. Delivery

The contractor(s) will complete delivery within **forty-five (45) days** after receipt of purchase order.

In the event the delivery is not received within the contract delivery period, the contractor may be held in default in accordance with paragraph 1, DEFAULT AND PERFORMANCE BOND in the North Carolina General Contract Terms and Conditions, and the state may procure the articles or services from other sources and hold the contractor responsible for excess cost occasioned thereby.

8. Transportation Charges

All goods shall be delivered FOB DESTINATION when the "order value" is **greater than the minimum order**, when shipped to a single destination. Orders to a single destination that total less than this "order value" should be shipped prepaid, with transportation charges added to the invoice as a separate item. (Note: Some vendors may be willing to ship with no transportation charge for orders less than the minimum order, but agencies should contact vendors directly and ask about this possibility. Vendors are not obligated to ship free for orders under the minimum order amount. Transportation charges invoiced for orders equal to or more than this "order value" may be cause for removal of the contractor from the contract.

NOTE: If the contractor makes partial shipments of an order equal to or more than this "order value" to one destination, all shipments of the order shall be sent FOB DESTINATION with NO additional transportation charges added.

All shipments should be inspected for damage immediately upon receipt.

9. Price Lists and Catalogs

The successful contractor must furnish descriptive literature to any agency within **seven (7) consecutive days** after request of the agency. Additionally, the Contractor shall provide with each piece of equipment an operations and maintenance manual with wiring diagrams, parts list, and a copy of all warranties.

10. Contractors

All known minority, women and disabled owned businesses, as well as disabled business enterprises and nonprofit work centers for the blind and severely disabled, including dealers, will be identified with "Minority owned" "Woman owned", "Disabled Owned", "DBE" or "BSD" as appropriate after the vendor number. This is being done in an effort to recognize these businesses and to encourage and promote their use to the greatest extent permitted by law.

When more than one supplier is listed for a particular item, selection should be made, whenever possible, from any of the groups identified above, consistent with agency needs and price considerations.

Contractor Name/Federal ID	Address	Contact Information
RAI Products, Inc.	421 Rountree Road Charlotte NC 28217	Ordering: John Rosenblatt Toll Free: (888) 776-7325 Phone: (704) 525-1852 Fax: (704) 525-1859 E-mail: john@raiproducs.com Service & Ordering: Russ Benson Toll Free: (888) 776-7325 Phone: (704) 525-1852 Fax: (704) 525-1859 E-mail: russ@raiproducs.com

11. Item Pricing Information

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BIDDER: RAI Products

FURNISH AND DELIVER:

ITEM	QTY.	UOM	DESCRIPTION	UNIT COST	TOTAL EXTENDED COST
1.	100	Each	Long Vehicle Speed detection Units MFR. <u>North Star Controls</u> MODEL <u>NQ-4</u>	<u>\$2,427.00</u>	<u>\$242,700.00</u>

TOTAL ALL ITEMS \$ 242,700.00

Units To Be Completely Assembled and Individually Boxed

LONG VEHICLE SPEED DETECTION SPECIFICATIONS: Furnish a long vehicle speed detection system (LVSD) that will detect vehicles exceeding both a specified length and a specified speed while ignoring vehicles which do not exceed both criteria. Ensure that upon detection of a long vehicle excess speed condition, the LVSD provides an alarm which indicates detection of the event.

Ensure the LVSD uses dual 6 foot by 6 foot loops to measure vehicle speed and length. Ensure LVSD accommodates loop separation of 8 to 25 feet, lagging edge to leading edge. Ensure the LVSD contains at least two (2) circuits of detection for monitoring of two separate lanes.

Upon detection of a long vehicle excess speed condition, ensure the LVSD provides an alarm which indicates detection of the event. Ensure the duration of this output is adjustable between 0 – 20 seconds in 1 second increments. If a succeeding event is detected prior to expiration of the alarm, ensure the alarm timer restarts. Provide an indicator for each circuit of detection which indicates when the alarm condition is active. Provide an alarm output that is a Form "C" SPDT relay with contacts rated a minimum of 1A @ 120VAC. Provide real-time speed and length measurements of all vehicles via front panel display or laptop software.

Ensure the LVSD allows setting of all required parameters including those noted below via the front panel or a laptop for each circuit of detection:

Parameter	Range	Maximum Increment
Alarm Duration	0 - 20 seconds	1 second
Speed Threshold	6 - 75 mph	1 mph
Length Threshold	18 - 30 ft	1 ft

If a laptop is used to adjust parameters, provide software that is licensed for use by the Department and by any other agency responsible for maintaining or operating the LVSD. Provide a license to the Department to allow the duplication of the personal computer software as needed to design, install and maintain these systems. Ensure software is compatible with Windows XP and Windows 7 operating systems. Provide software that does not require administrative permissions to load and operate.

Ensure the LVSD measured speed is within 5 percent of actual speed and measured length is within 15 percent of actual length.

Ensure the LVSD is compatible with NEMA TS-1, NEMA TS-2, Type 170E, Type 2070L, and Type 2070E controllers. Provide a self-contained LVSD unit that contains the required detector sensors, logic functions, front panel interface, and input/output circuitry. As an alternative, provide an LVSD logic unit that contains the required logic functions, front panel interface, and input/output circuitry that interfaces with detector sensors located in the cabinet rack. Ensure detector sensor units provided with self-contained LVSD units comply with Chapter 5 Section 1, "General Requirements," and Chapter 5 Section 2, "Model 222 & 224 Loop Detector Sensor Unit Requirements," of the CALTRANS "Transportation Electrical Equipment Specifications" dated March 12, 2009 with Erratum 1. When detector sensors are not included in the LVSD, ensure LVSD is compatible with detector sensors complying with Chapter 5 Section 1, "General Requirements," and Chapter 5 Section 2, "Model 222 & 224 Loop Detector Sensor Unit Requirements," of the CALTRANS "Transportation Electrical Equipment Specifications" dated March 12, 2009 with Erratum 1.

If rack-mounted, ensure the LVSD occupies no more than one card slot per detection circuit, and mounts in a Caltrans 332 type input file. If shelf-mounted, ensure the LVSD is housed in a nonferrous case durably finished with two (2) coats

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of high quality enamel paint or in shielded polymer housing, and its dimensions do not exceed 7 inches wide by 7 inches high by 9 inches deep.

Provide a moisture resistant coating on each printed circuit board. Ensure lightning and surge protection is incorporated into the design of the LVSD.

Provide a 4-foot minimum length power cable with molded plug (NEMA 5-15P) to deliver 120 Volt 60 Hz input power to the LVSD unit.

Provide any wiring harness(es) required for the operation and maintenance of the LVSD with each LVSD. Ensure each wire is permanently labeled, numbered, or color-coded.

Provide one copy of user and maintenance manuals with each unit.

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BIDDER:

RAI Products.

NC Supplier Contact Form

Company Information	
Company Name	RAI Products
Address	P.O. Box 240778
City, State, Zip Code	Charlotte, NC 28224
Company Phone	704 585-1858
Company Fax	704 525-1859
Description of Products Sold	Traffic Control Products
Does your company utilize fulfillment partners/channel partners (dealers, distributors, resellers, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Customer Service Phone Number	1 888 776-7225
Ariba Network ID (if applicable)	
Dun & Bradstreet Number	
Website URL (if applicable)	
Business Contact – Person who understands NC relationships and who can serve as a project manager	
First and Last Name	John Rosenblatt
Job Title	
Phone Number	Same as above
Fax Number	
E-Mail Address	
Address (if different from above)	
Technical Contact – (If different from above) – Person within your organization who can assist with the creation of an electronic product catalog for your contract line items	
First and Last Name	
Job Title	Same as above
Phone Number	
Fax Number	
E-Mail Address	
Address (if different from above)	
Corporate eCommerce Contact – (If different from above) – Person within your organization who best understands the company eCommerce initiatives and will communicate these initiatives to the organization	
First and Last Name	
Job Title	
Phone Number	Same.
Fax Number	
E-Mail Address	
Address (if different from above)	

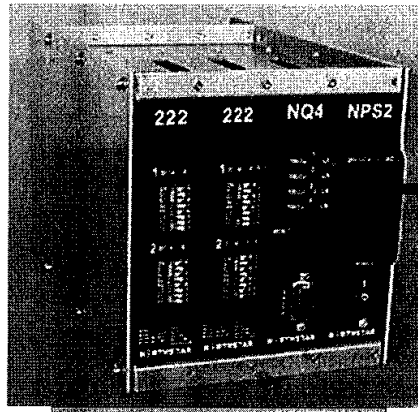


6167 Clark Center Avenue
Sarasota, Florida 34238
Internet: www.northstarcontrols.com
Fax: (941) 926-2461 Tel: (941) 926-2454

Queue Monitor/Speed Advisory System

Model NQ4 Features:

- Self-contained, stand alone unit
- 2 outputs, two lanes of coverage
- Uses standard 222 detectors
- Simple-to-operate user interface
- Separate: lane, trigger, fault and power indicators
- Front panel DB9 for upload/download of information
- Power supply: 120VAC



The NQ4 has been specifically designed and engineered for use in special application traffic control and warning situations such as: Over speed/Over length detection, truck roll over advisory and blind curve warning. Information the user may view via laptop computer connected to the front panel DB9 of the NQ4's Logic Module include: current set-up, and current data such as speed, length and lane.

The NQ4 uses a pair of Northstar Controls 222 vehicle detectors which provide for a wide inductance range allowing use with many different size and configurations of loops. (For recommended loop sizes please consult the Northstar Loop Information Guide).

The NQ4 Logic Module includes separate indicators for: Lane, Trigger (output), Fault and Power providing quick visual verification of proper operation. Loop diagnostics are easily viewed with the 222 detector fault indicators, differentiating between current and historical faults thus facilitating troubleshooting.

Reliable operation and long field life are key engineering goals in every Northstar product.

NQ4 Specifications

Physical Specifications:

- Two (2) 222 dual channel vehicle loop detectors.
- Relay Alarm Outputs (connectable to either NEMA or 170 style controllers).
- Meets or exceeds NEMA temperature range.
- Standard International Style card rack.
- Power supply, internal resettable fuse, LEDs showing AC power 'ON' and 24V 'ON'.
- Logic module has front panel DB9 connector for user set-up and viewing of parameters.
- Standard 'wall socket' style power plug w/ground.
- All PCB's are conformal coated (moisture resistant coating).
- LED's for visual verification of outputs per lane.

Field Programmable For:

- Loop size (feet).
- Loop spacing (feet and/or inches from leading edge to leading edge).
- Speed threshold (MPH).
- Vehicle length threshold (feet and/or inches).
- Output duration (seconds), output duration restarts for succeeding vehicle exceeding thresholds.

Logic Module View Mode Via Laptop:

- View current set-up such as loop size, loop spacing, speed and length thresholds.
- View current data per lane.

User Programmable Thresholds Via Laptop:

- Trigger (output) duration may be set from 0 – 20 seconds in 1 second increments.
- Speed threshold may be set from 0 – 120 MPH in 1 MPH increments.
- Length threshold may be set from 0 to 99 feet in 6" increments.

Relay Output Rating: 1A 277VAC/30VDC, with built-in lightning protection.

Power: 120 VAC.

Size: 6.5" W x 5.5" H x 9" D

222 Detector Specifications:

Inductance Range: 20uH to 2000uH.

Temperature Range: -40° F to +180° F.

Lead-In Length: up to 2000 ft. with proper lead-in and loop.

Mechanical: International size card: 4.5" H x 7" L, conformal coated, 44 contact (2 x 22), gold plated double sided edge connector.

Front Panel: 1.1" W x 4.5" H, handle: 3" L & extends 1" from front panel.

Weight: 6 oz.

Supply Voltage – 10.8 to 30VDC.

Indicators – front panel indicators include:

Detect – Red, solid during detect. Flashes during current fault
Fault – Yellow, flashes during current or historical fault.

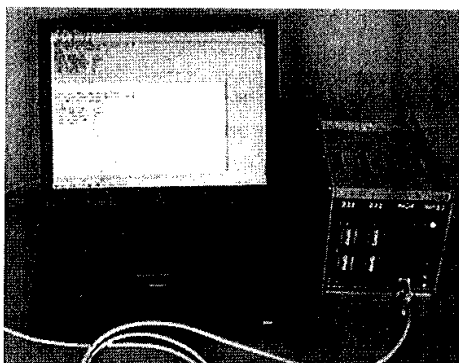
Flash sequence for fault types:

- Open = 1 blink, 1 space
- Short = 2 blinks, 1 space
- 25% inductance change = 3 blinks, 1 space

Connector – 2 x 22 Card Edge.

Pins	Functions
A	D.C. (-) Common
B	D.C. (+) Power
C	Reset
D	Loop Ch. 1
E	Loop Ch. 1
F	Output Ch. 1 Collector (Relay N.O.)
H	Output Ch. 1 Emitter (Relay Com.)
J	Loop Ch. 2
K	Loop Ch. 2
L	Chassis Ground
W	Output Ch. 2 Collector (Relay N.O.)
X	Output Ch. 2 Emitter (Relay Com.)

Note: The above optional relay connections are shown with correct power supplied and no vehicle present.



Specifications are subject to change without notice.

Northstar Controls L.L.C. warrants this product against defects in Manufacturing and workmanship for two years from date of shipment from the Northstar Controls L.L.C. factory.

I. NQ4-Rev B



Warranty

Contractor guarantees items offered to be free from any and all defects in material, packaging and workmanship and agrees to replace defective items promptly at no charge to the State, for a period of **two (2) years** from date of acceptance. Such replacement shall include parts, freight, labor, and round-trip travel to the user's site, which will be the responsibility of the contractor.

12. Substitutions

Substitutions are not permitted without prior approval of the Division of Purchase and Contract. Failure of the contractor to comply with this requirement may result in the removal of the contractor from the contract.

13. Vendor Complaint Form:

The Vendor Complaint Form can be found by clicking: [Vendor Complaint Form](#).

14. Contract Addenda

Addendum	Effective Date	Description
1	1/8/14	Administrator Change